

Special Issue

Reactive Oxygen Species (ROS): Molecular Mechanisms and Therapeutic Strategy

Message from the Guest Editor

Reactive oxygen species (ROS), which are in a chemically active state, are a byproduct of the metabolism of oxygen in cells. They play critical roles in molecular mechanisms in cellular signaling processes, proliferation/migration and homeostasis. Furthermore, the molecular mechanism of ROS is a double-edged sword. Appropriate levels of intracellular ROS contribute to the proliferation, migration and/or homeostasis of cells, while their over-production frequently induces cell cycle arrest, apoptosis, necrosis and/or alterations of genetic/cell structure. These unique properties of ROS have been investigated as a therapeutic tool for various diseases. For example, novel chemotherapeutic agents, which produce ROS, can be used to induce oxidative stress intracellularly and then kill abnormal cells. Additionally, ROS-producing agents can be used as anticancer agents for cancer chemotherapy.

Guest Editor

Dr. Young-Il Jeong

Department of Dental Materials, College of Dentistry, Chosun University, Gwangju 61452, Republic of Korea

Deadline for manuscript submissions

closed (30 September 2023)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/132251

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)